

NSW Public Schools to 2036

Impact of Enrolment Growth on Demand for Teachers in Local Government Areas



Contents

About the Author	2
Key Findings	4
1. Enrolment Projections	4
2. Key State-wide Teacher Demand Projections	4
3. Purpose and scope	5
4. Methodology and analytical approach of Briefing Paper	5
Findings	7
1. Projected enrolments and enrolment growth	7
2. Historical student:teacher ratios	7
3. Projections and sensitivity analysis	11
4. NSW State-wide Findings on Demand for Additional Teachers by 2036	12
5. LGAs with high enrolment growth	12
6. LGAs with Large Growth in Additional Teachers	13
7. Five Super-Growth LGAs — Education Beyond COVID-19 and Social Exclusion	14
Recommendations for Action	16
Background Notes	17
References	20
Notes	21

About the Author

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This briefing paper has been commissioned by the NSW Teachers Federation. The purpose of the paper is to project the number of teacher positions required to meet predicted enrolments in NSW public schools (kindergarten to year 12).

Key Findings

1. ENROLMENT PROJECTIONS

Total public school enrolments in NSW by 2036 are projected by the Department of Education to grow by 20 per cent on 2020 enrolments and

reach nearly 966,000 students. By 2036, primary and secondary schools are projected to enrol 594,000 and 373,000 students respectively.

2. KEY STATE-WIDE TEACHER DEMAND PROJECTIONS

Three different projections for state-wide growth in teacher demand are provided. These apply NSW Department of Education enrolment growth projections until 2036. They are combined variations on state-wide and national average student:teacher ratios. The third projection also models a slightly higher growth rate in enrolment share by NSW public schools. Projection results by 2036:

- **PROJECTION 1** is for an additional **12,422 FTE teachers**
- **PROJECTION 2** is for an additional **13,624 FTE teachers**
- **PROJECTION 3** is for an additional **18,585 FTE teachers**.

High-growth LGAs

Applying Projection 2 parameters, **11 high-growth LGAs will require more than 10,000 additional teachers to be employed** in public schools between now and 2036. The 11 high-growth LGAs are all in Sydney and are mostly in the western and south-western regions of Sydney (with the exception of Ryde and Bayside LGAs).

Super-growth LGAs

There are five (5) super-growth LGAs that will each need more than 1000 additional teachers for each LGA to be employed between now and 2036. **The super-growth LGAs** (Cumberland, Blacktown, Parramatta, Liverpool and Canterbury-Bankstown) **will need a combined additional 6500 teachers to cope with increased enrolments.**

Recommendations

- 1. Policy commitment for action** — The size of enrolment increases within the coming years combined with the impact of COVID-19, means that NSW is in a race to safeguard the learning and development of a generation of children in the west and south-west of Sydney. The NSW Government (and indeed the Commonwealth) should adopt as a key policy target the immediate large-scale increase in the teaching force for these priority and high-need LGAs. Getting in early can only help to remediate the educational challenges that have been exposed and deepened by the COVID-19 pandemic. It will leave these schools with a more manageable task for developing quality of learning. The alternative is those schools being abandoned to soaring enrolment growth coupled with a cohort of learners already battered and left behind by COVID-19.
- 2. Immediate growth in teaching force in super-growth LGAs of 3250 FTE teachers is required** — The NSW Government needs to commit to employing in 2022 and 2023 approximately 50 per cent of the projected additional teachers to be required by public schools by 2036 (ie hiring approximately 3250 FTE additional teachers by 2023 across primary and secondary schools). These additional teachers are in line with the growth in enrolment projections for these super-growth LGAs that will be experienced during the years 2020-26. The failure to deliver these increases in teacher numbers will see schools in these high needs LGAs fall to fewer teachers per student than for the NSW state-wide average.

3. PURPOSE AND SCOPE

This briefing paper has been commissioned by the NSW Teachers Federation. This paper is the second in a series looking at changes in enrolment in NSW public schools and their impact on the future demand for teachers. The first paper provides a state-wide overview of issues and the net impact at a state-wide level of projected increases in public school enrolments.

This paper drills deeper to look at those Local Government Areas (LGAs) that are projected to experience the strongest enrolment growth. It estimates the future growth in teacher numbers that will be required by schools in these LGAs to meet the needs of the NSW public school system (kindergarten to year 12).

As for the earlier report, the projections for teacher demand only model the impact of future enrolment

growth to the year 2036. The projections **do not include** the existing teacher shortages within the NSW public school system. In the background section of this Briefing Paper, there are citations to reports and statements from senior Department of Education (Department) officials and the NSW Education Minister that make abundantly clear there are incredibly significant existing teacher shortages. The existing shortages relate to difficulty in placing teachers within hard-to-teach locations, insufficient teachers for certain subjects and specialised teachers for students with disabilities. These current shortages have not been quantified by authorities, and it is outside the remit of this paper to develop estimates of the size of these existing teacher shortages. This paper only calculates the additional teachers that will be required because of enrolment growth.

4. METHODOLOGY AND ANALYTICAL APPROACH OF BRIEFING PAPER

The Briefing Paper draws on publicly available data from the Australian Bureau of Statistics (ABS) and enrolment projections prepared by the NSW Department of Education that has been retrieved through the Government Information Public Access Act (GIPA). The data sources are referenced in this Briefing Paper where they are used.

The demand projections are based on the following calculations:

1. Projected growth in enrolments 2020-2036
2. Estimated additional teachers required based on historical student:teacher ratios
3. Sensitivity analysis based on different historical student:teacher ratios

4.1 Projected enrolment growth

This benchmark year of 2020 is the latest available year for enrolments by Local Government Area (LGA) as reported by NSW Department of Education.¹

Enrolments for this benchmark year are compared with NSW government official projections for student enrolments in public schools to the year 2036. The enrolment projections were released by the NSW Department of Education

under the Government Information (Public Access) Act 2009. Ref GIPA-18-132. The data released by GIPA-18-132 shows NSW public school enrolment for 2017 and enrolment trends for the years 2026 and 2031.

Enrolment projections for 2036 were obtained by NSW Teachers Federation v Secretary, Department of Education – NCAT Proceedings 2021/73032. It should also be noted that enrolments classified as being for Schools for Specific Purpose (SSP) are not included in these enrolments and projections for 2036. The earlier report for the NSW Teachers Federation had included these enrolments and apportioned them across primary and secondary levels. These projections report the estimated FTE enrolments at NSW public primary, secondary and central schools schools at term 1 each year.

This paper utilises NSW state-wide primary and secondary enrolment data and projections for levels of public schooling. There are significant differences in the student:teacher ratio between these levels of schooling. Separating out their enrolments supports a greater degree of accuracy by accounting for any different rates

¹ Centre for Education Statistics and Evaluation (CESE), 2021

of enrolment growth between primary and secondary levels.

4.2 Historical student:teacher ratios

The historical student:teacher ratios (FTE equivalent) are taken from the ABS collection Table 53a.²

The student:teacher ratios for primary and secondary levels of schooling are multiplied by the projected additional numbers of students enrolled to calculate the additional teachers (FTE) that will be required to be in the NSW public school system.

4.3 Sensitivity analysis

The sensitivity analysis is framed by three different cases for student:teacher ratios:

- **Projection 1** is generated by applying the **NSW public schools** 10-year average (2011-

20) student:teacher ratio for primary and secondary levels of schooling to the additional enrolment projections

- **Projection 2** applies the **NSW All Schools (public and private)** 10-year average (2011-20) student:teacher ratio for primary and secondary levels of schooling to the additional enrolment projections
- **Projection 3** applies the **National All Schools (public and private)** 10-year average (2011-20) student:teacher ratio for primary and secondary levels of schooling to the additional enrolment projections. In addition, NSW public schools are slated to grow their share of additional annual enrolments by 5 per cent above their current level.

² Australian Bureau of Statistics. (2021), Table 53a Student (FTE) to Teaching Staff (FTE) Ratios, 2006-2020

Findings

1. PROJECTED ENROLMENTS AND ENROLMENT GROWTH

Based on the most recent actual enrolment data for NSW, there were just more than 804,000 students enrolled in primary and secondary public schools in 2020.

Total public school enrolments in NSW by 2036 are projected by the Department of Education to reach nearly 966,000 students. Primary schools will absorb 594,000 and secondary schools 373,000. According to the NSW Department of Education, they are modelled to show the

continued rates of school participation and population growth observed retrospectively. They include the observed choice of parents to send their children to (i) schools out of catchment, (ii) co-ed vs single-sex schooling, and (iii) other specialist education types. Enrolment trend projections are produced using population and housing projections from NSW Department of Planning and Environment and are designed for internal consistency with them.

Table 1. NSW primary and secondary public schools – projected enrolments 2020-2036

Level	2020*	2036**	Growth in students (2020-2036)	Growth %
Primary	493,283	593,888	100,605	20.4%
Secondary	310,696	372,562	61,866	19.9%
Total	803,979	966,450	162,471	20.2%

* Actual enrolment data for 2020 is obtained from ABS 43a. Figures as reported by NSW government to ABS

** Enrolment projections for 2026 and 2031 as provided under the Government Information (Public Access) Act 2009. Ref GIPA-18-132, by NSW Department of Education. Enrolment projections for 2036 obtained by Australian Education Union, NSW Teachers Federation Branch v Secretary, Department of Education – NCAT Proceedings 2021/73032.

Enrolments classified as being for Schools for Specific Purposes (SSPs) are not included in these enrolments and projections.

2. HISTORICAL STUDENT:TEACHER RATIOS

In comparing student:teacher ratios across Australia and between public and private school systems it is useful to consider the extent of teacher resourcing in NSW classrooms.

The table below shows that NSW has under-resourced its schools in terms of teacher numbers when compared to the *national average for public schools* over the past 10 years. Whereas NSW had on average 14.4 students per teacher (across primary and secondary levels), the Australian average was 14.0 students per teacher.

It is also revealing that NSW had higher student:teacher ratios for primary (15.8) and secondary (12.7) than for states with a

comparable level of urbanisation, Victoria and Queensland. Both other large states have had average student:teacher ratios in the past 10 years that have been below that of NSW.

These data reveal that NSW has a starting position in terms of teacher resourcing that is already less intensive (per student) than for the national average or for the other larger comparable states.

Table 2. Public school student:teacher ratios, 2011-2020

Public schools	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-year average 2011-20
Primary Level	NSW	15.5	15.5	15.5	15.6	15.8	15.6	15.8	15.4	16.8	16	15.8
	Vic	15.4	15	15.3	15.3	15.3	14.8	14.8	14.6	14.4	14.1	14.9
	Qld	15.3	15.4	15.8	15.3	14.8	14.5	14.4	14.2	14.3	14.3	14.8
	SA	14.9	14.9	14.9	14.9	14.9	14.9	14.6	14.5	14.5	14.5	14.8
	WA	15.6	15.9	15.8	16.2	15.7	15.4	15.6	15.7	15.8	15.6	15.7
	Tas	14.3	14.5	14.6	14.8	15.4	15	14.8	14.8	14.4	13.9	14.7
	NT	11.8	11.5	12.1	12.2	13	12.6	12.3	12.6	11.8	11.8	12.2
	ACT	13.7	13.8	13.1	13.3	14.6	14.7	15	14.9	14	13.9	14.1
	Aust	15.3	15.2	15.4	15.4	15.3	15	15	14.8	15.2	14.8	15.1
Secondary Level	NSW	12.5	12.4	12.3	12.4	12.5	12.5	12.4	12.3	13.9	13.4	12.7
	Vic	11.7	11.9	12.2	12.5	12.6	12.5	12.3	12.1	12.3	12.2	12.2
	Qld	12.5	12.5	12.6	12.5	12.7	12.5	12.4	12.2	12.1	12.1	12.4
	SA	13.4	13.2	13.2	13.1	13.2	13.3	12.9	12.7	12.7	12.5	13.0
	WA	11.4	11.7	12	12.6	13.4	12.6	12.4	12.6	12.8	12.8	12.4
	Tas	13	13.1	13.2	13.1	13.4	13.2	13.1	12.9	12.7	12.5	13.0
	NT	10.5	10.3	11	11.5	11.9	11.9	12.4	12.1	11.9	11.8	11.5
	ACT	11.8	11.8	11.9	12.1	11.6	11.8	11.9	12.3	12.3	12.4	12.0
	Aust	12.2	12.3	12.4	12.5	12.7	12.6	12.4	12.3	12.8	12.6	12.5
All Levels	NSW	14.1	14.1	14	14.2	14.3	14.3	14.2	14.1	15.6	14.9	14.4
	Vic	13.6	13.5	13.9	14	14.1	13.8	13.7	13.5	13.5	13.3	13.7
	Qld	14.2	14.2	14.5	14.2	13.9	13.6	13.6	13.4	13.3	13.4	13.8
	SA	14.3	14.2	14.2	14.2	14.2	14.3	14	13.8	13.8	13.7	14.1
	WA	14	14.3	14.4	14.9	14.8	14.3	14.2	14.4	14.6	14.4	14.4
	Tas	13.7	13.9	14	14	14.5	14.2	14.1	13.9	13.7	13.3	13.9
	NT	11.3	11	11.7	11.9	12.6	12.3	12.3	12.4	11.8	11.8	11.9
	ACT	12.8	12.9	12.6	12.7	13.1	13.3	13.6	13.7	13.3	13.3	13.1
	Aust	13.9	13.9	14.1	14.2	14.2	14	13.9	13.8	14.2	13.9	14.0

Source: Data retrieved from ABS. [Table 53a](#)

Table 3. Private school student:teacher ratios, 2011-2020

Private schools	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-year average 2011-20
Primary Level	NSW	16.6	16.5	16.4	16.6	16.3	16.1	15.8	15.5	15.3	15.2	16.0
	Vic	14.9	14.8	14.6	14.6	14.5	14.2	14.1	13.9	13.7	13.5	14.3
	Qld	17.5	17.4	17.4	17.4	16.5	16.4	16	15.9	15.9	15.9	16.6
	SA	16.1	15.9	15.8	16.1	16.2	16	15.9	16.5	14.5	14.9	15.8
	WA	17.1	17.1	16.9	16.8	15.5	15.3	15.1	14.9	14.9	14.9	15.9
	Tas	16.1	15.6	15.9	16	15.5	15.3	15.1	14.9	14.3	14.3	15.3
	NT	15.5	15.7	15.5	15.3	15.5	14.7	14.6	14.6	13.4	13.3	14.8
	ACT	17.3	17	16.9	16.5	16.1	16	16	16.3	15.8	15.9	16.4
	Aust	16.4	16.2	16.1	16.2	15.7	15.5	15.3	15.1	14.8	14.8	15.6
Secondary Level	NSW	11.8	11.8	11.8	11.8	11.7	11.5	11.4	11.3	11.2	11.1	11.5
	Vic	11.1	11.1	11.1	11.1	11.1	11	11	10.9	10.8	10.8	11.0
	Qld	12.2	12.2	12.2	12.2	12.4	12.2	12.1	12	11.9	12.1	12.2
	SA	11.7	11.7	11.6	11.7	11.5	11.3	11.2	10.8	12.3	12.1	11.6
	WA	10.9	10.8	10.7	10.7	12.1	11.9	11.8	11.6	11.6	11.7	11.4
	Tas	11.5	11.6	11.5	11.5	11.4	11.4	11.2	11	10.9	10.8	11.3
	NT	10.5	10.3	10.9	10.5	10.5	10.3	10.5	10.5	10.5	10.5	10.5
	ACT	12.7	12.5	12.6	12.2	12.1	12.1	12	11.9	11.7	11.9	12.2
	Aust	11.6	11.5	11.5	11.5	11.7	11.5	11.4	11.3	11.4	11.4	11.5
All Levels	NSW	13.8	13.7	13.7	13.8	13.6	13.4	13.2	13	12.9	12.8	13.4
	Vic	12.7	12.6	12.6	12.6	12.5	12.3	12.3	12.2	12.1	12	12.4
	Qld	14.7	14.6	14.7	14.6	14.2	14	13.8	13.7	13.6	13.7	14.2
	SA	13.8	13.8	13.7	13.9	13.8	13.6	13.5	13.5	13.3	13.3	13.6
	WA	13.8	13.7	13.6	13.5	13.5	13.3	13.2	13	13	13.1	13.4
	Tas	13.3	13.2	13.3	13.3	13.1	13	12.8	12.6	12.4	12.3	12.9
	NT	12.5	12.4	12.7	12.4	12.5	12.1	12.2	12.2	11.8	11.7	12.3
	ACT	14.6	14.4	14.4	14.1	13.9	13.8	13.8	13.8	13.5	13.6	14.0
	Aust	13.6	13.6	13.6	13.6	13.4	13.2	13.1	12.9	12.8	12.8	13.3

Source: Data retrieved from ABS. [Table 53a](#)

Another valid comparison is between NSW public schools and private schools across Australia. NSW public schools with an average of 14.4 students per teacher are higher than the private school average of 13.4 in NSW and 13.3 across Australia.

NSW is particularly under-resourced relative to other states' private schools at the secondary level (a 10-year average 12.7 in NSW public schools compared with 11.5 in private schools across Australia).

Of concern also, is that the student:teacher ratio in NSW is travelling upwards and therefore in the wrong direction. By 2020, the NSW student:teacher ratio has climbed to 16 per teacher for primary. This compares with a national average in the private sector of 14.8 and a NSW private sector average of 15.2. For the secondary level, NSW public schools had 13.4 students per teacher in 2020 compared with 11.1 for private schools in NSW and 11.4 nationally.

Table 4. All school sectors student:teacher ratios, 2011-2020

School level	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-year average 2011-20
Primary Level	NSW	15.9	15.8	15.7	15.9	15.9	15.8	15.8	15.4	16.3	15.8	15.8
	Vic	15.2	14.9	15.1	15.1	15.1	14.6	14.6	14.3	14.2	13.9	14.7
	Qld	15.9	16	16.2	15.9	15.2	15	14.9	14.7	14.7	14.8	15.3
	SA	15.3	15.2	15.2	15.3	15.3	15.3	15	15.1	14.5	14.6	15.1
	WA	16	16.2	16.1	16.4	15.7	15.4	15.4	15.5	15.6	15.5	15.8
	Tas	14.7	14.8	14.9	15.1	15.5	15.1	14.9	14.8	14.4	14.1	14.8
	NT	12.4	12.2	12.7	12.8	13.5	13	12.7	13	12.1	12.1	12.7
	ACT	15	14.9	14.4	14.4	15.1	15.1	15.4	15.3	14.6	14.5	14.9
	Aust	15.6	15.5	15.6	15.6	15.4	15.2	15.1	14.9	15.1	14.8	15.3
Secondary Level	NSW	12.2	12.2	12.1	12.2	12.1	12.1	11.9	11.9	12.7	12.4	12.2
	Vic	11.5	11.5	11.7	11.9	11.9	11.8	11.7	11.6	11.6	11.5	11.7
	Qld	12.4	12.4	12.4	12.4	12.6	12.4	12.3	12.1	12.1	12.1	12.3
	SA	12.7	12.6	12.5	12.5	12.5	12.5	12.2	11.9	12.5	12.3	12.4
	WA	11.2	11.3	11.5	11.7	12.8	12.3	12.1	12.2	12.3	12.3	12.0
	Tas	12.5	12.6	12.6	12.5	12.6	12.5	12.3	12.2	12	11.9	12.4
	NT	10.5	10.3	11	11.1	11.4	11.2	11.6	11.5	11.4	11.4	11.1
	ACT	12.2	12.1	12.2	12.1	11.8	11.9	11.9	12.1	12	12.2	12.1
	Aust	12	12	12	12.1	12.3	12.1	12	11.9	12.2	12.1	12.1
All Levels	NSW	14	14	13.9	14	14	14	13.9	13.7	14.5	14.1	14.0
	Vic	13.3	13.2	13.4	13.5	13.5	13.2	13.2	13	13	12.8	13.2
	Qld	14.4	14.4	14.5	14.3	14	13.8	13.6	13.5	13.4	13.5	13.9
	SA	14.1	14.1	14	14.1	14.1	14.1	13.8	13.7	13.6	13.6	13.9
	WA	13.9	14.1	14.1	14.4	14.3	13.9	13.8	13.9	14	14	14.0
	Tas	13.6	13.7	13.8	13.8	14.1	13.8	13.7	13.5	13.3	13	13.6
	NT	11.6	11.4	12	12.1	12.6	12.2	12.3	12.3	11.8	11.8	12.0
	ACT	13.5	13.5	13.3	13.3	13.4	13.5	13.6	13.7	13.4	13.4	13.5
	Aust	13.8	13.8	13.9	13.9	13.9	13.7	13.6	13.5	13.7	13.5	13.7

Source: Data retrieved from ABS [Table 53a](#)

Another historical comparison of student:teacher ratios is between NSW public schools and the all-sector average (combined public and private schools) for Australia and NSW.

The national all-school average student:teacher ratio across primary and secondary schools drops to 13.7. For primary schools it is 15.3 but is

significantly lower for secondary schools at 12.1.

Looking just at NSW, the primary level all-school average is the same as public schools at 15.8 students per teacher. For the secondary level, the all-school average is significantly lower (12.2) compared with NSW public schools (12.7).

3. PROJECTIONS AND SENSITIVITY ANALYSIS

Based on the analysis of the tables above, this Briefing Paper has chosen projections based on

policy variables related to teacher recruitment. These projections are presented in the table below.

Table 5. Teacher projections – projection cases and sensitivity analysis

Scenario	Description	Primary	Secondary
PROJECTION 1	NSW public school 10-year average student:teacher FTE ratio	15.8	12.7
PROJECTION 2	NSW (private and public) 10-year average student:teacher FTE ratio	15.8	12.2
PROJECTION 3	National (private and public) 10-year average student:teacher FTE ratio	15.3	12.1

Source: Study-derived averages utilising data retrieved from ABS

PROJECTION 1 has been chosen on the basis that it reflects the stable student:teacher ratio of the NSW public sector over the past 10 years. The most recent years for NSW public schools have fluctuating student:teacher ratios (up and down) that are explained as being driven by NSW Department of Education changes in calculating FTE numbers for teachers.

PROJECTION 2 is set as the NSW all schools average student:teacher ratio (public and private schools). This is in line with the greater resourcing that is set to flow to NSW public schools from the SRS-driven increases in funding.

PROJECTION 3 applies two conditions:

- (i) national average student:teacher ratios are applied to NSW public school enrolments. This raises the expectation that NSW public schools have a standard of resourcing that is at least the average of what is enjoyed by schools across Australia, and
- (ii) the additional enrolment increase for public schools during the five-year period 2031-36 that have been projected by the Department of Education, is given a 5 per cent additional loading. This assumes that public schools by 2031 are better positioned to assume an increased annual share of new enrolments.

4. NSW STATE-WIDE FINDINGS ON DEMAND FOR ADDITIONAL TEACHERS BY 2036

The number of additional teachers required in 2036 due to enrolment growth is derived from the following calculation:

Additional Teachers = *Teacher Projections for 2036 (Projections 1, 2, 3) - (Current number of FTE in-school teachers in NSW public schools in 2020 as reported by the NSW Department of Education to the ABS, Table 51a).*

By 2036, it is projected that NSW public primary and secondary schools (excluding Schools for Specific Purposes) will require between **12,400 and 18,600 additional FTE equivalent teachers** above 2020 FTE teacher numbers.

Table 6. Teacher demand projections, FTE teachers to 2036

	Primary ratio	Secondary ratio	In-school primary teachers	In-school secondary teachers	Total in-school teachers	Additional FTE in-school teachers on 2020
Current situation	16	13.4	30,942	23,560	54,502	0
PROJECTION 1	15.8	12.7	37,588	29,336	66,923	12,422
PROJECTION 2	15.8	12.2	37,588	30,538	68,126	13,624
PROJECTION 3	15.3	12.1	40,757	32,330	73,087	18,585

PROJECTION 1 is for an additional **12,422 FTE teachers** required by 2036.

PROJECTION 3 is for an additional **18,585 FTE teachers** required by 2036.

PROJECTION 2 is for an additional **13,624 FTE teachers** required by 2036.

5. LGAs WITH HIGH ENROLMENT GROWTH

Applying the enrolment projections of the Department of Education from NCAT (as for state-wide Projections 1 and 2) it is possible to present at the LGA level the growth on student enrolments from 2020 until 2036. There are two important observations regarding the growth in student enrolments in NSW during the period 2020-36:

Eleven LGAs in NSW are projected to experience public school enrolment growth in excess of 5000 students by 2036.

Five super-growth LGAs will experience public school enrolment that will be in excess of 15,000 students by 2036.

Table 7. High-growth LGAs – Projected additional enrolments in public schools by 2036

LGA	Additional primary enrolments by 2036	Additional secondary enrolments by 2036	Total additional enrolments by 2036	Percentage increase on 2020 enrolments
Cumberland	10,420	9,626	20,046	103%
Blacktown	9,999	9,126	19,125	45%
Parramatta	11,237	7,758	18,995	72%
Liverpool	9,732	6,471	16,203	65%
Canterbury-Bankstown	7,260	8,671	15,931	48%
Penrith	8,522	3,852	12,374	49%
Bayside	5,781	4,929	10,710	133%
Camden	7,275	3,124	10,399	79%
The Hills	5,975	3,633	9,608	48%
Ryde	5,010	2,846	7,856	72%
Campbelltown	3,877	2,870	6,747	31%

6. LGAs WITH LARGE GROWTH IN ADDITIONAL TEACHERS

Eleven high-growth LGAs will require more than 10,000 additional teachers to be employed in public schools between now and 2036. The 11 high-growth LGAs are all in Sydney and are mostly in the western and south-western regions of Sydney (with the exception of Ryde and Bayside LGAs).

Table 8. High-growth LGAs – Projected additional teachers required by 2036

LGA	Additional primary teachers by 2036	Additional secondary teachers by 2036	Total additional teachers by 2036	Additional teachers as % of current teachers
Cumberland	659	789	1,448	90%
Blacktown	633	748	1,381	42%
Parramatta	711	636	1,347	69%
Liverpool	616	530	1,146	54%
Canterbury-Bankstown	459	711	1,170	41%
Penrith	539	316	855	43%
Bayside	366	404	770	113%
Camden	460	256	717	75%
The Hills	378	298	676	49%
Ryde	317	233	550	64%
Campbelltown	245	235	481	26%
Total	5,405	5,156	10,563	54%

7. FIVE SUPER-GROWTH LGAs – EDUCATION BEYOND COVID-19 AND SOCIAL EXCLUSION

There are five super-growth LGAs that will each need more than 1000 additional teachers for each LGA to be employed between now and 2036. The LGAs of Cumberland, Blacktown, Parramatta,

Liverpool and Canterbury-Bankstown will combined need an additional 6500 teachers to cope with increased enrolments.

Table 9. Five super-growth LGAs – Projected additional teachers required by 2036

Super-growth LGA	Additional primary teachers by 2036	Additional secondary teachers by 2036	Total additional teachers by 2036
Cumberland	659	789	1,448
Blacktown	633	748	1,381
Parramatta	711	636	1,347
Liverpool	616	530	1,146
Canterbury-Bankstown	459	711	1,170
Additional teachers in super-growth LGAs	3,078	3,414	6,493

The five super-growth LGAs that will be battling to recruit the largest number of teachers in the near future, are also some of the LGAs that have been at the epicentre of the COVID-19 outbreak in 2021. Hit with some of the hardest lockdowns in the country and over the longest period of time, communities and schooling have suffered enormously. The extended closure of classrooms in these areas combined with lower than average incomes for many households, and more limited public and household educational resources, has pushed teaching and learning beyond all recognised limits in the Australian context.

The educational challenges and disadvantage experienced by many within these LGAs has been turbocharged by COVID-19 and the health restrictions that have been imposed on these LGAs to bring the virus under control. There will clearly be extensive remedial efforts in teaching and learning that will have to go beyond efforts in other areas (in NSW or across the country) that have not been hit as hard.

This Briefing Paper maps the very considerable increase in the supply of primary and secondary teachers (between 12,400 and 18,600 additional teachers) that will be required for NSW by 2036.

It highlights the especially strong growth in

the supply of teachers that will be required by 11 LGAs in Sydney. The five **super-growth LGAs (Cumberland, Blacktown, Parramatta, Liverpool and Canterbury-Bankstown)** combined will demand an additional 6500 just for themselves to cope with increased enrolments.

The five super-growth LGAs are also some of the LGAs that have been hardest hit by the COVID-19 pandemic and lockdown restrictions, which have affected school learning as well as other public goods and services.

There is a strong case to be made for bringing forward the recruitment of large numbers of teachers for these LGAs. The additional 6500 teachers will need to be employed in a staggered way between now and 2036. Bringing forward the recruitment of very significant numbers of additional teachers within these schools will throw vital resources at resuscitating the teaching and learning processes for schools and their communities within these badly hit LGAs.

The table below shows how the projected growth in enrolments within these five super-growth LGAs is in fact front-ended for all of them. The increased enrolment happens more towards 2020 than towards 2036.

Table 10. Super-growth LGAs – Public school projected enrolments 2020–36, primary and secondary

Super-growth LGA	2020	2026	2031	2036
Cumberland	19,383	32,951	36,761	39,429
Blacktown	42,617	54,217	58,603	61,742
Parramatta	26,548	37,476	42,495	45,543
Liverpool	24,769	32,479	36,184	40,972
Canterbury-Bankstown	33,098	43,574	47,182	49,029

A total of 6515 additional teachers will be required by public schools by 2036 in the super-growth LGAs. This is a 55 per cent growth on the existing 11,868 teachers that are identified by the Department as working in these LGAs.³

Table 11. Additional teachers required in super-growth LGAs – all public schools

Super-growth LGA	All primary and secondary schools		
	Teachers in 2020	Additional teachers by 2036	% increase on 2020 Total
Cumberland	1,605	1,448	90%
Blacktown	3,307	1,381	42%
Parramatta	1,965	1,347	69%
Liverpool	2,123	1,146	54%
Canterbury-Bankstown	2,868	1,170	41%
Grand Total	11,868	6,493	55%

Public primary schools in the five super-growth LGAs will need more than 3100 teachers above the existing 7192 that are reported by the Department to have been working in these LGAs in 2020. This is a 43 per cent increase above current staffing numbers.

Table 12. Additional teachers required in super-growth LGAs – public primary schools

Super-growth LGA	Primary schools		
	Current teachers	Additional teachers by 2036	% increase on 2020 Total
Cumberland	1,097	659	60%
Blacktown	2,032	633	31%
Parramatta	1,264	711	56%
Liverpool	1,121	616	55%
Canterbury-Bankstown	1,678	459	27%
Total	7,192	3,078	43%

For secondary schools in the super-growth LGAs, teacher supply will need to increase by 73 per cent with an additional 3414 FTE teachers to be employed above the 4676 that are identified by the Department as working in public schools there in 2020.

³ Data for teachers by all LGAs in NSW in 2020 was obtained from the NSW Minister for Education and Early Childhood Learning. Question on Notice 6899 (July 19, 2021) – Teachers Breakdown. This data was presented by level of schooling as FTE staff. See New South Wales, Questions and Answers, Legislative Council, 9 August 2021, 6727

Table 13. Additional teachers required in super-growth LGAs, public secondary schools

Super-growth LGA	Secondary schools		
	Current teachers	Additional teachers by 2036	% increase on 2020 Total
Cumberland	508	789	155%
Blacktown	1,275	748	59%
Parramatta	701	636	91%
Liverpool	1,002	530	53%
Canterbury-Bankstown	1,190	711	60%
Total	4,676	3,414	73%

Recommendations for Action

1. Policy commitment for action — The size of enrolment increases within the coming years combined with the impact of COVID-19, means NSW is in a race to safeguard the learning and development of a generation of children in the west and south-west of Sydney. The NSW Government (and indeed the Commonwealth) should adopt as a key policy target the immediate large-scale increase in the teaching force for these priority and high-need LGAs. Getting in early can only help to remediate the educational challenges that have been exposed and deepened by the COVID-19 pandemic. It will leave these schools with a more manageable task for developing quality of learning. The alternative is those schools being abandoned to soaring enrolment growth coupled with a cohort of learners already battered and left behind by COVID-19.

2. Immediate growth in teaching force in super-growth LGAs of 3250 FTE teachers is required — The NSW Government needs to commit to employing in 2022 and 2023 approximately 50 per cent of the projected additional teachers to be required by public schools by 2036 (approximately 3250 additional FTE teachers by 2023 across primary and secondary schools). These additional teachers are in line with the growth in enrolment projections for these super-growth LGAs that will be experienced during the years 2020–26. The failure to deliver these increases in teacher numbers will mean schools in these high-needs LGAs will fall to fewer teachers per student than for the NSW state-wide average.

Background Notes

Background – existing teacher shortages

The existing and significant problems faced by the NSW Department of Education in meeting the demand for teachers up to 2021 are to the side of the projected demand for even more teachers during the period 2020 to 2036. They are outlined here because they signal that increasing the number of teachers to cope with rising demand is not as simple as turning on a tap. Suitably qualified teachers need to be recruited for the appropriate subjects, to teach in a variety of locations. They need also to be employed with satisfying work conditions and remuneration that will encourage them to stay in the teaching service for a longer term.

Current teacher shortages in NSW public system – not available (NA)

There is no public data quantifying the current overall total shortage of teachers by subject or location. The problem may not even be one of gaining public access to the data. The NSW Auditor-General warned in 2019 the Department did not know what disciplines teachers teach and was unable to predict supply and demand:

- *“The NSW Department of Education’s plans and strategies to respond to the demand for secondary teachers in STEM-related disciplines are limited by incomplete data and underperforming scholarship and sponsorship programs. The Department does not collect sufficient information to monitor what disciplines teachers actually teach nor does it predict supply and demand for teachers by discipline and location. This restricts the Department’s ability to track and forecast the supply and demand for secondary teachers in STEM-related disciplines.”⁴*

In a letter to the chair of the NSW Public Accounts Committee regarding the Auditor-General’s report, Department secretary Mark Scott wrote:

- *“Since the audit recommendation that the workforce planning model be improved to better understand and communicate supply and demand for teachers, the Department of Education has been working diligently to enhance our subject and key learning area forecast capabilities. This model provides the capacity to more clearly observe*

the demand for teachers as well as the supply of teachers across the state and provides a forecast of these figures out to 2030.”⁵

It is not clear how successful the efforts of the Department have been in generating the projections for teacher supply and demand. In a letter to the NSW Teachers Federation, the Department states:

- *“People Group have stated that they do not currently hold records of projections of additional teachers required each year to 2030, broken down by primary/secondary level and subject area. Creating a new record that would fulfil this request would require **minimum** 200 hours of work.”⁶*

Subject-related teacher shortages are significant and growing

The Department has itself stated in a workforce projection report, that while overall there is an adequate supply of secondary teachers, there was an exception:

- *“... in the areas of Mathematics, Science with Physics, some subjects in Technological and Applied Studies, some specialist teachers and some specific subjects in particular geographical locations.”⁷*

The insufficient teachers assessment has been reinforced by the NSW Auditor-General:

- *“In recent years, Australian and international education policy has focused on improving outcomes in Science, Technology, Engineering and Mathematics (STEM) subjects. However, research has identified a shortage of qualified secondary teachers in STEM-related disciplines. This is projected to worsen due to a combination of student population increases, an ageing workforce, and fewer people going into teaching. Shortfalls are likely to be more acute in rural and remote areas, and areas of low socio-economic status.”⁸*

Specialist teachers for students with disabilities

There are acute shortages of specialist teachers

⁴ Audit Office of NSW, 2019.

⁵ Scott, July 22, 2020.

⁶ NSW Department of Education, November 30, 2020, personal communication [letter to the NSW Teachers Federation].

⁷ NSW Government, 2015, p. 14

⁸ Audit Office of NSW, op. cit., p. 1.

to meet the needs of students with disabilities. This applies to mainstream schools as well as Schools for Specific Purposes (SSPs), as accepted by the Department:

- *“Teachers across NSW, in mainstream schools and specialist settings, are working with students with disability to achieve remarkable outcomes. However, rising demand, as well as an increasing shortage of staff with specialist training mean our system is facing unprecedented pressures.”*
- *“Currently, only 9 per cent of NSW teachers (6000) are approved to teach special education, and the number of new special education graduates each year is going down, not up. With 61 per cent of supporting teachers now over the age of 50 (compared to 43 per cent of all teachers), the need to invest more in developing a strong pipeline of teachers with relevant skills is undeniable.”⁹*

Rural and remote locations

NSW Education Minister Sarah Mitchell said last year the teacher shortage was “one of many things that sometimes keeps me awake at night”, and went on to say:

- *“I recognise there are issues with teacher shortages across the state. It’s pronounced in regional [sic] and regional areas, but I hear it from teachers based in the city as well. I am proactively considering ways in which we can better incentivise teachers to take up positions in rural and regional areas. It is an ongoing challenge. I do think money is part of it. But it’s not the only part.”¹⁰*

Indeed, the Department has been noticeably clear about the shortages of teachers for certain rural and remote schools. These are exacerbated by the difficulty in retaining teachers within those locations:

- *“Filling vacant positions with quality teachers remains a critical issue for principals in rural and remote schools. The ability of rural and remote schools to attract and retain staff remains critical. Financial incentives appear to attract teachers to rural and remote locations, but do not appear to have had an impact on retention.”¹¹*

Unable to fill teacher positions even where they are created and budgeted

An indication of the size of the bigger problem is illustrated by the fact that for the Department the number of vacant permanent positions (FTE) doubled from 705 in 2011 when the Coalition was elected to 1436 in 2019.¹²

This means approximately 3 per cent of all **existing** FTE staff positions remained unfilled in 2019. Mark Scott explained:

- *“We are facing very, very significant challenges on workforce planning, not just in NSW but every Australian education system all around the country, government and non-government schools. Challenges about getting enough teachers, enough teachers qualified in certain subject areas, teachers in certain geographies. I do actually think there is a limit to the number of 18-year-olds, who emerge after 13 years of schooling, who are willing to put up their hands for four more years at university so they can go back to school for another 50 years.”¹³*

The Department is simply unable to recruit sufficient suitable teachers for the required locations (rural and remote, and other hard-to-staff areas) with its current salaries and broader conditions of employment. This is to the side of any budgeting issue preventing recruitment of additional teachers.

Contributing to the problem are the difficulties associated with retaining teachers within the profession and the school system. NSW Education Standards Authority (NESA) research shows a rising rate of graduate teachers leaving the profession:

- *“The proportion of NSW graduate teachers who were removed from the accreditation list within six years of being granted initial teacher accreditation peaked at 13 per cent in 2013. 2013 represented a significant increase on the previous four-year average (10.0 per cent). Both 2014 and 2015 are already above 12.3 per cent, which would indicate there has been an increase in the rate of graduate teachers leaving the profession in more recent years.”¹⁴*

9 NSW Department of Education, ca. 2019, p. 1.

10 Chrysanthos et al., February 21, 2020.

11 Centre for Education Statistics and Evaluation (CESE), 2020, p. 12.

12 Houssos, 2021.

13 Scott, M., February 17, 2021. Sydney Morning Herald Schools Summit, [unpublished, documented via audio recording].

14 New South Wales Education Standards Authority (NESA), 2020, p.3

■ *“The Department is simply unable to recruit sufficient suitable teachers ... with its current salaries and broader conditions of employment”*

The difficulties faced by the NSW public school system are not strictly endogenous to that system. The NSW Catholic school system is also experiencing similar problems.

■ *“On average, about 30 per cent of secondary schools have a temporary or permanent teacher vacancy, while 20 per cent of primary schools are in the same position. Some regions, such as Armidale, are experiencing even more severe shortages. Schools have been managing these shortages by:*

- *combining classes, resulting in large class sizes and heightening safety concerns around staff-student ratios and adequate supervision*
- *foregoing teachers’ scheduled lesson planning time*
- *asking part-time teachers to reschedule non-work days*
- *asking support staff to supervise classes.¹⁵*

Teacher recruitment is bigger than NSW

The growth in demand for teachers is a national phenomenon. Even five-year projections for teacher numbers show a rapid growth in the number needing to be employed across all states and territories:

■ *“The 2019 employment projections produced by the National Skills Commission showed that employment for school teachers was expected to increase by 10.2 per cent (or 42,600 new jobs) over the five years to May 2024, above the average projected growth rate across all occupations of 8.3 per cent.”¹⁶*

These projections do not include the additional teachers on 2020 numbers that are required

to address current shortages due to (i) subject specialisation, (ii) difficulty in recruiting for remote and rural locations, (iii) hard-to-staff schools, and (iv) for the specific needs of students with disabilities.

All three projections are conservative. They are based on existing student:teacher ratios within Australia. They do not incorporate any aspirational improvements in student:teacher ratios (eg to address greater needs of students with disabilities or significantly lower student:teacher ratios to support children at risk of not meeting minimum learning benchmarks). The projections are based on current practice within NSW and Australian school systems.

¹⁵ Independent Education Union of Australia, NSW/ACT Branch, March 24, 2021

¹⁶ Senate Estimates

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Notes





NSW Public Schools to 2036

**Impact of Enrolment Growth on Demand
for Teachers in Local Government Areas**